

INDEX OF AUTHORS FOR VOLUME 4

- Agnew, H., 378
 Ahrens, John B., 386
 Alexander, Judith, 393
 Altshuler, Kenneth A., 397
 A-Malouin, Jacqueline, 493
 Anderson, David, 382
 Antrobus, J. S., 48
 Antrobus, Judith S., 48
 Arkin, Arthur M., 396
 Averill, James A., 468
 Ax, Albert F., 79, 506

 Baekeland, Frederick, 367, 436
 Baer, Paul E., 501
 Bajor, G., 397
 Baldridge, B. J., 371, 373
 Barnett, Ann, 363
 Barratt, Ernest S., 501
 Beall, G. N., 397
 Belanger, David, 493
 Benjamin, Lorna S., 187
 Benoit, Odile, 384
 Benton, Richard G., 229, 340
 Berger, Ralph J., 368
 Bernick, Niles, 502
 Bernstein, Jacob, 389, 390
 Blanton, David E., 231
 Bonelli, Leonard, 503
 Borowitz, Gene, 502
 Braun, M., 395
 Brebbia, D. Robert, 397
 Brenner, J., 1
 Brown, Barbara B., 300
 Brown, Clinton C., 99, 156, 249
 Bruhova, S., 384

 Campos, Joseph J., 143
 Carlson, V. R., 395
 Carpenter, F. Allen, 362
 Cartwright, Rosalind D., 382
 Chase, William G., 503
 Chism, R. A., 83
 Cohen, Harvey, 362, 394
 Cohen, Harry, 377, 379, 381
 Cowen, Murray A., 90, 207
 Conner, Robert, 379, 394
 Crider, Andrew, 168
 Cutter, Matthew, 499

 Daniels, Robert S., 387

 Darrow, Chester, 505
 Day, J. L., 421
 Dean, Sanford, J., 460
 DeBoo, Gordon J., 486
 Delse, Fred, 363
 Dement, William, 377, 379, 380, 381, 383, 394, 398
 Dewan, Edmond M., 365
 DeYoung, Gerrit, 504
 DiBianco, Phillis, 362, 394
 Doerr, Hans O., 502
 Domhoff, Bill, 386
 Droppleman, L. F., 75
 Duncan, Richard, II, 377, 379
 Dykman, Roscoe A., 216, 231

 Eason, Robert G., 503
 Edelberg, Robert, 40, 505
 Edwards, A. E., 116
 Edwards, David, 369
 Ellman, Steven J., 364, 387
 Engel, B. T., 83
 Evans, Frederick J., 151, 369

 Feather, Ben, 278, 363
 Fecci, Adolf, 362
 Feinberg, I., 395
 Fender, D. H., 499
 Ferguson, James, 380
 Fernandez, Cesar, 368
 Fick, Arthur, 349
 Fink, M., 366
 Fisher, Charles, 393
 Fiss, Harry, 364
 Fitzgerald, Robert D., 352
 Fox, Richard P., 373
 Foulkes, David, 371, 372, 373, 386
 Frazier, Robert, 369
 Fuhrer, Marcus J., 176, 501

 Gale, Elliot, 342
 Germana, Joseph, 324
 Giesige, Richard, 349
 Globus, G., 365, 366
 Goldberg, Susan, 498
 Goldmacher, Donald, 366
 Graham, David T., 503
 Graham, Frances K., 503
 Green, J., 391
 Groth, Hilde, 498

- Groves, Philip M., 503
Grings, William W., 479
Gulevich, George, 383
Gullickson, Gary R., 56, 505
Gustafson, Lawrence A., 369
- Hanley, J., 391, 392
Harris, Lance, 504
Hart, Joseph T., 506
Hartmann, Ernest, 388, 389, 390, 391, 396
Hartwig, C. Dean, 381
Hattle, Maureen, 504
Hauri, Peter, 267
Hawkins, David R., 388, 394
Healey, J., 365
Hein, Peter, 499
Hellman, Leon, 366
Henry, Peter, 379
Herron, R. E., 112
Heuser, G., 378, 392
Hickman, C., 366
Hicks, Ronald G., 349, 500
Hill, R. A., 116
Hobson, J. Allan, 367, 385, 393
Holden, J. M. C., 366
Hothersall, D., 1
Hupka, Ralph B., 161
- Itil, T., 366
- Jacobson, A., 378, 391, 392, 397
Johnson, Harold J., 143
Johnson, Laverne C., 311, 362, 386, 444
Juniper, Kerrison, Jr., 216, 231
- Kado, R. T., 384
Kaelbling, Rudolf, 381
Kahn, Edwin, 393
Kales, A., 378, 391, 392, 397
Kales, J. D., 391, 392, 397
Kapen, Sheldon, 377
Karacan, Ismet, 363, 375, 378, 382
Karadzic, Veselinka, 379
Karpan, Wayne E., 386, 444
Katcher, Aaron, 506
Katkin, Edward S., 504
Katz, Ruth A., 99, 156
Kheder, Noble P., 500
Kilbey, Marlyne, 176
Kinder, Peggy, 375
Kiremitci, N., 366
Klein, George S., 364
Klein, Stephen, 324
Kling, Arthur, 502
Knapp, P., 365
- Kollar, E. J., 392
Korn, James H., 453
Koski, E. Greg, 371, 381
Koulack, David, 367, 368, 436
Kramer, Milton, 372, 373
Krausman, David, 249
Kream, Jacob, 366
Kripke, Daniel, 366
Kussman, Michael, 75
- Larson, James D., 371
Lasky, Richard, 367, 436
Lehmann, D., 499
Lehovsky, M., 384
Levine, Brian, 387
Levine, Seymour, 379, 394
Levinger, George, 161
Levonian, Edward, 284
Lewis, Michael, 498
Lewis, Nancy, 294
Lipton, Morris, 388
Lodge, Ann, 363
Lubin, Ardie, 311, 362
- MacGregor, Peter, 366, 377
Malcuit, Gerard, 493
Marans, A., 363
Marcus, R. J., 376
Martin, Randall B., 460
Marusak, C., 391
McCubbin, Robert J., 504
McDaniel, C. Douglas, 229, 340
McDonald, David G., 362, 369, 508
McDonald, Robert, 207
McLachlan, K. R., 307
McNair, D. M., 75
Mefferd, Roy B., 229, 340
Mendels, Joe, 388, 394
Meyers, W. J., 56
Mitchell, George, 379
Mitchell, Stephen A., Jr., 398
Monroe, Lawrence J., 370, 382
Morden, Bruce, 379, 394
Mordkoff, Arnold M., 40, 500
Mori, K., 376, 384
Moyer, K. E., 453
- Naitoh, P., 392
- Obrist, Paul A., 7, 504
O'Connell, Donald N., 151, 369
Offenkrantz, William, 387
Orne, Martin T., 329, 369
Ornstein, P. H., 372, 373

- Pivik, Terry, 371, 379, 383, 386
Plumlee, Lawrence, 507
Plutchik, R., 79
Po, J., 391
Pope, Jack M., 486

Ramsden, R. W., 112
Raskin, David C., 504
Ravenscroft, Kent, Jr., 396
Reding, Georges R., 368, 387
Rickles, W. H., 354, 421
Robinson, John E., Jr., 396
Rosen, Gabriel, 394
Rosenbaum, Joyce, 387
Rosenblatt, Gerald, 390
Ross, John, 90, 207, 378
Roth, B., 384

Sadler, Timothy G., 229, 340
Schachter, J., 104
Schicht, William W., 508
Scott, Jimmy, 363, 370, 375, 382
Seal, Herbert R., 354
Shallenberger, Hugh D., 362, 508
Shapiro, Arthur, 362, 375, 394
Shapiro, David, 168, 366
Shaw, J. C., 307
Shean, Glenn, 460
Shmavonian, Barry M., 502
Shollar, Edward, 387
Shor, Ronald E., 369
Shulman, E., 395
Skinner, J., 365
Sly, R. M., 397
Smith, David D. B., 468, 486
Smith, Vernon H., 396
Snyder, Frederick, 370, 375, 382
Spooner, C. E., 376, 384
Spreng, Lawrence, 311, 362
Stern, John A., 342, 403, 496
Stern, Robert, 294
Sternbach, R. A., 67
Surwillo, Walter W., 223
Swanson, Ethel M., 373, 386
Swett, Chester P., 385

Tart, C. T., 35
Teyler, Timothy, 352

Thackray, Richard I., 329
Tharp, Van K., Jr., 375
Thomas, Jacques, 384
Thompson, Noel P., 244
Tobin, M., 104
Torda, Clara, 372
Torii, Shizuo, 377
Traub, Arthur, 382, 383
Treadwell, T. A. B., 116
Turner, Lucille H., 506
Tursky, Bernard, 67, 151

Uno, Tadao, 479
Ursin, Reidun, 385
Ustick, M., 40

Van de Castle, R. L., 374, 375
Van Twyver, Henry, 364
Vardaris, Richard, 352
Vogel, Gerald, 382, 383
Webb, Roger A., 7, 504
Webb, Wilse B., 364, 378
Weled, Barry, 498
Wells, David T., 278, 363
Weitzman, Elliot D., 366, 377
Wenger, Marion A., 468
Whitman, R. M., 372, 373
Wieland, Betty A., 229, 340
Wilcott, Robert C., 500
Williams, R., 378
Williams, T. A., 104
Wilson, Alan, 502
Wilson, Arthur, 502
Wilson, Clair, 389
Wilson, Ronald S., 125
Wilson, T. E., 397
Winters, W. D., 376, 384

Yanagisawa, Isamu, 377
Yarbrough, Raymond B., 244

Zarccone, Vincent, 383
Zepelin, Harold, 370, 396
Zimmerman, Stuart O., 396
Zimmerman, William B., 387
Zung, William W. K., 397
Zweizig, J. R., 392

SUBJECT INDEX FOR VOLUME 4

- Activity
 measurement of, 112
 pre-sleep, effect on sleep patterns, 267
 skin conductance and skin potential
 correspondence during, 161
- Actors, and control of GSR, 294
- Analysis of covariance, in autonomic
 variable analysis, 187
- Analysis of variance, in autonomic variable
 analysis, 125, 187
- Anger, as induced by accomplices, 79
- Anocova, in autonomic variable analysis,
 187
- Anova, in autonomic variable analysis, 187
- Anticholinergic drugs
 effect on skin conductance response, 75
 effect on skin resistance levels, 231
 effect on sweat gland counts, 231
- Anticipatory response, in GSR, 40
- Anxiety
 as indicated by sweat gland component
 of GSR, 40
 from pre-sleep film, effect on EEG sleep
 patterns, 436
- Arousal
 as determined by skin conductance
 base level, 56
 as produced by epinephrine injection, 79
 effect on alpha rhythm, 307
 effect on GSR latency, 223
 effect on heart rate, 56
 effect on retention, 284
 non-palmar measurement of, 421
 skin potential and skin conductance
 correspondence during, 161
- Attention
 effect on heart rate, 143
 effect on instrumental conditioning of
 GSR, 460
 effect on skin conductance, 223
- Auditory stimuli, heart rate response to,
 56, 104
- Betazole hydrochloride
 effect on skin resistance, 231
 effect on sweat gland counts, 231
- Bio-instrumentation, in long-term tele-
 metry, 354
- Biophysics, in determining source of DC
 potentials, 207
- Blood brain barrier, as a factor in DC
 potentials, 207
- Blood pressure, in detection of deception,
 329
- Cardiotachometer, in measurement of
 heart rate, 486
- Cardiovascular system, as affected by
 respiration rate, 83
- Change scores, in autonomic variable
 analysis, 187
- Cognitive tasks
 effect on heart rate, 143
 effect on skin conductance, 143
 plus stress, effect on GSR, 229
- Cold pressor
 plus cognitive tasks, effect on GSR, 229
 plus reaction time measurements, effect
 on GSR, 340
- Compound stimulus transfer, to evaluate
 counterconditioning, 479
- Conditioning
 classical
 aversive, in dogs, 7
 CS-US interval variation in, 278
 delayed, discriminative, 40, 342
 delayed, salivary, 99
 discriminative, of GSR, 479
 measurement of heart rate during,
 352
 terminology of, 262
 operant
 of GSR, 460
 of salivation, 156
 of skin potential response rate, 168
 terminology of, 263
- Conflict, experimental, in dogs, 7
- CS-US interval, and salivary conditioning,
 278
- Counterconditioning, fear and relaxation,
 479
- D.C. illumination, in shielding EEG lab-
 oratories, 244
- DC potentials
 as affected by drugs, 90
 voltage source of, 207
- Detection of deception, physiological
 measures used, 329

- Digital pulse volume, in counterconditioning, 479
- Discrimination, of sleep stages by subjects, 48
- Dreams
- basal skin resistance during, 35
 - pre-sleep films, effect on, 436
 - stage, subject discrimination, 48
- Drive, activation of, by pre-sleep films, 436
- Drugs
- effect on DC potentials, 90, 207
 - effect on skin conductance response, 75
 - effect on skin resistance, 231
 - effect on sweat gland activity measures, 216
 - effect on sweat gland counts, 231
 - to induce arousal, 79
- Electric shock, responses among ethnic groups, 67
- Electrode adhesives, in long-term telemetry, 354
- Electrodermal measures
- measures used, 261
 - normality of distribution of level scores across subjects, 151
 - orienting responses in, 403
 - spinal cord transection, effect on, 176
- Electrodes, in long-term telemetry, 354
- Electroencephalogram (EEG)
- alpha rhythm in, 307
 - shielding of laboratories, 244
- sleep
- REM, 35, 48, 267, 311
 - stage 1, 35
 - stage 2, 48, 267
 - delta, 267
- Electrooculograph (EOG)
- during sleep, 267
 - relationship to visual imagery, 300
 - relationship to visual recall, 300
- Emissary veins, as mapped by isopotential zones of head, 207
- Emotions
- anger, 79
 - euphoria, 79
 - in controlling GSR, 294
 - in detection of deception, 329
 - in dogs, effect on heart rate, 7
 - induced by accomplices, 79
 - sexual arousal, autonomic patterns, 468
- Epidermis
- factor in correspondence between skin conductance and skin potential, 161
 - measurement from, dorsal placement, 40
- Epinephrine
- effect on DC potentials, 90, 207
 - to induce arousal, 79
- Ether, effect on DC potentials, 90
- Ethnic differences, in response to shock, 67
- Euphoria, as induced by accomplices, 79
- Evening work, effect on sleep patterns, 267
- Eye movements
- relationship to visual imagery, 300
 - relationship to visual recall, 300
- Frequency measurement, in heart rate measurement, 486
- Galvanic Skin Response (GSR)
- as measure of arousal, 284
 - cognitive tasks plus stress, effect on, 229
 - control of, 294
 - counterconditioning of, 479
 - habituation of, 453
 - latency of, as affected by motivation and attention, 223
 - in detection of deception, 329
 - instrumental conditioning of, 460
 - non-palmar measurement of, 421
 - orienting response, 324
 - pattern, during sleep, 35
 - reaction time measurements plus stress, effect on, 340
- Gastric motility, measurement of, 116
- Gastric secretion, as related to other autonomic variables, 216
- Gastric total acid, as related to other autonomic variables, 216
- Habituation
- of electrodermal responses, 67, 403, 453
 - of EEG orienting response, 403
 - of heart rate, 56
 - of peripheral blood volume orienting response, 403
- Heart rate
- as indicator of arousal, 79
 - cognitive tasks, effect on, 143
 - control of, 1
 - during skin potential response rate conditioning, 168
 - during sleep, 267
 - in dogs, during conditioning, 7
 - in humans, during rest, among ethnic groups, 67
 - measurement
 - cardiotachometer method, 486
 - in rats, 493
 - measures used, 260
 - on-line method, 352

- respiration rate, effect on, 83
- response
 - evoked, to auditory stimuli, habituation of, 56, 104
 - orienting, 56, 324
 - spontaneous variations in, 104
 - to shock, among ethnic groups, 67
 - verbalization instructions, effect on, 143
- Heparin, effect on DC potentials, 90, 207
- Histamine
 - effect on DC potentials, 90, 207
 - effect on sweat gland activity measures, 216, 231
- Human development, as seen in orienting response analysis, 403
- Individual differences, in physiological patterns during sleep, 35
- Instructions, and habituation of electrodermal orienting response, 453
- Inter-stimulus interval, variable
 - effect on heart rate in dogs, 7
 - effect on salivary conditioning in humans, 99
 - effect on somatic motor activity in dogs, 7
- Isolation transformers, in shielding EEG laboratories, 244
- K-Complex, autonomic correlates of, 444
- Law of basal values, in autonomic variable analysis, 187
- Law of final values, in autonomic variable analysis, 187
- Law of initial values, in autonomic variable analysis, 187
- Lie detection, physiological measures used, 329
- Locomotion, measurement of, 112
- Magnetometer, in measurement of gastric motility, 116
- Motivation, and GSR, 223
- Multiple correlation, in autonomic variable analysis, 187
- Multiple regression, for behavioral prediction from autonomic response patterns, 125
- Nembutal, effect on DC potentials, 90
- Neonate, heart rate in, evoked and spontaneous, 104
- On-line measurement, of heart rate, 342
- Orienting response
 - adaptive responses, 403
 - conditional responses, 403
 - DC potentials, 90
 - EEG, 403
 - GSR, 403, 453
 - GSR, epidermal component, 40
 - heart rate, 56, 324
 - peripheral blood volume responses, 403
 - vasomotor, 342
- Oxygen saturation, and detection of deception, 329
- Pain
 - cold pressor
 - with cognitive tasks, effect on GSR, 229
 - with reaction time measurements, effect on GSR, 340
 - effect on DC potentials, 90
 - shock, response to, 67
- Parotid, suction cups for measurement of salivation, 99, 156
- Pattern reversal, effect on heart rate habituation, 56
- Pentobarbital, effect on DC potentials, 207
- Peripheral blood volume
 - as affected by respiration rate, 83
 - during sleep, 267
 - in detection of deception, 329
 - orienting responses in, 403
- Peripheral pulse amplitude
 - in detection of deception, 329
 - vasoconstriction during sleep, 267
- pH, as related to autonomic variables, 216
- Programming, of signal presentation, 249
- Propantheline bromide
 - effect on skin resistance, 231
 - effect on sweat gland counts, 231
- Punched paper tape, in programming signal presentation, 249
- Rapid Eye Movements (REM), and pre-sleep films, 436
- Reaction times, plus stress, effect on GSR, 340
- Reciprocal transformation, in autonomic variable analysis, 187
- Reinforcement
 - in salivary conditioning, 156
 - in skin potential response rate conditioning, 168

- Reliability, in autonomic variable analysis, 187
- Respiration
- amplitude, in dogs, during conditioning, 7
 - during skin potential response rate conditioning, 168
 - during sleep, 267
 - in detection of deception, 329
 - rate, effect on heart rate, 1, 83
- Response feedback
- in control of GSR, 294
 - in control of heart rate, 1
- Response patterns, during sexual arousal, 468
- Rest, correspondence between skin conductance and skin potential levels during, 161
- Retention, and arousal, 284
- Salivation
- as affected by CS-US interval, 278
 - as related to other variables, 216
 - conditioned, 99, 156, 278
- Serotonin, effect on DC potentials, 90, 207
- Sets
- relationship to habituation of electrodermal orienting response, 453
 - relationship to response to shock, 67
- Sex differences, in effect of instructions upon habituation of electrodermal orienting response, 453
- Sexual arousal, autonomic activity during, 468
- Shielding, of EEG laboratories, 244
- Signal analysis, in alpha rhythm, 307
- Signal control, by punched paper tape readers, 249
- Skin conductance
- base level
 - as indicator of arousal
 - effect on heart rate habituation, 56
 - relationship to alpha rhythm, 307
 - correspondence with skin potential level, 161
 - spinal cord transection, effect on, 176
 - latency
 - as determination of anticipatory response, orienting response, and unconditional response, 40
 - cognitive tasks, effect on, 143
 - verbalization instructions, effect on, 143
- response
- anticipatory, 40
 - correspondence with skin potential response, 161
 - orienting, 40
 - unconditional, 40
- Skin potential
- base level
 - correspondence with skin conductance base level, 161
 - during skin potential response rate conditioning, 168
 - normality of distribution across subjects, 151
 - response
 - correspondence with skin conductance response, 161
 - during sleep, 267
 - in detection of deception, 329
 - response-rate conditioning, 168
 - to shock, 67
 - wave form, 161
- Skin resistance
- as measured by Wheatstone bridge, 349
 - base level
 - among ethnic groups, 67
 - cognitive tasks plus stress, effect on, 229
 - drugs, effect on, 231
 - nonpalmar site measurement, 421
 - relationship to other autonomic variables, 216
 - pattern, during sleep, 35
 - response
 - drugs, effect on, 231
 - spinal cord transection, effect on, 176
- Sleep
- abstracts, of the Association for the Psychophysiological Study of Sleep, 361
 - spontaneous K-complexes during, 444
 - stages
 - delta, and evening work, 267
 - REM
 - autonomic correlates of, 311
 - evening work, effect on, 267
 - pre-sleep films, effect on, 436
 - skin resistance patterns during, 35
 - stage 1, 35

- stage 2, 48
- subject discrimination of, 48
- Somatic motor activity, and heart rate
 - during conditioning in dogs, 7
- Spinal cord transection, effect on electrodermal activity, 176
- Statistical analysis of autonomic data, 187, 125, 284
- Stimulus repetition, auditory, effect on heart rate habituation, 56
- Stimulus specificity, within GSR, 40
- Stress
 - in detection of deception, 329
 - plus cognitive task, effect on GSR, 229
 - plus reaction time measurements, effect on GSR, 340
- Sweat gland
 - component of GSR, palmar placement, anxiety response, 40
 - counts
 - drugs, effect on, 231
 - in relation to other variables, 216
 - factor in correspondence between skin conductance and skin potential, 161
 - prints, 75
 - relationship to rhythmic non-palmar GSR activity, 421
- Tarchonoff effect
 - and attention, 223
 - and motivation, 223
- Telemetry
 - bio-, adhesives used in, 354
 - radio, monitoring locomotion, 112
- Temperature
 - face, among ethnic groups, 67
 - rectal, during sleep, 267
- Thresholds, upper, differences among ethnic groups, 67
- Transducers, in long-term telemetry, 354
- Unconditional response
 - in GSR, 40
 - in salivary conditioning, 99
- Vascular phenomena, measures of, 261
- Vasomotor response, classically conditioned, 342
- Verbalization
 - effect on heart rate, 143
 - effect on skin conductance, 143
 - in detection of deception, 329
- Visual imagery, and eye movements, 300
- Visual recall, and eye movements, 300
- Voluntary control
 - of GSR, 294
 - of heart rate, 1
- Wheatstone bridge, in measuring skin resistance, 349

PSYCHOPHYSIOLOGY

THE JOURNAL OF OBJECTIVE RESEARCH
IN THE PHYSIOLOGY OF BEHAVIOR

Volume 4

July 1967-April 1968

Published Quarterly by the SOCIETY FOR PSYCHOPHYSIOLOGICAL RESEARCH
Detroit, Michigan 48207

COPYRIGHT © 1968 BY THE SOCIETY FOR PSYCHOPHYSIOLOGICAL RESEARCH

CONTENTS OF VOLUME 4

No. 1, JULY 1967

| | |
|---|-----|
| Paced Respiration and Heart Rate Control. JASPER BRENER AND DAVID HOTHERSALL. | 1 |
| Heart Rate During Conditioning in Dogs: Relationship to Somatic-Motor Activity. PAUL A. OBRIST AND ROGER A. WEBB. | 7 |
| Patterns of Basal Skin Resistance During Sleep. CHARLES T. TART. | 35 |
| The Differential Conditionability of Two Components of the Skin Conductance Response. ARNOLD M. MORDKOFF, ROBERT EDELBERG AND MICHAEL USTICK. | 40 |
| Discrimination of Two Sleep Stages by Human Subjects. JUDITH S. ANTROBUS, PH.D. AND JOHN S. ANTROBUS, PH.D. | 48 |
| The Evoked Heart Rate Response: The Influence of Auditory Stimulus Repetition Reversal, and Autonomic Arousal Level. WILLIAM J. MEYERS AND GARY R. GULLICKSON. | 56 |
| Further Physiological Correlates of Ethnic Differences in Responses to Shock. BERNARD TURSKY AND RICHARD A. STERNBACH. | 67 |
| Finger Sweat Print Tape Bands. DOUGLAS M. MCNAIR, LEO F. DROPPLEMAN, AND MICHAEL KUSSMAN. | 75 |
| A Critique of <i>Determinants of Emotional State</i> by Schachter and Singer (1962). ROBERT PLUTCHIK AND ALBERT F. AX. | 79 |
| Effect of Increases and Decreases in Breathing Rate on Heart Rate and Finger Pulse Volume. BERNARD T. ENGEL AND RAY A. CHISM. | 83 |
| Some Biochemical Factors that Modify the Transepithelial DC Potential. MURRAY A. COWEN AND JOHN ROSS. | 90 |
| Psychophysiological Aspects of Parotid Salivation in Man: II. Effects of Varying Interstimulus Intervals on Delayed Salivary Conditioning. CLINTON C. BROWN AND RUTH A. KATZ. | 99 |
| Spontaneous Variation in Heart Rate: Relationship to the Average Evoked Heart Rate Response to Auditory Stimuli in the Neonate. THOMAS A. WILLIAMS, M.D., JOSEPH SCHACHTER, M.D., PH.D., AND MICHAEL TOBIN, M.E.E. | 104 |
| <i>Instrumentation</i> | |
| A Telepedometer for the Remote Measurement of Human Locomotor Activity. R. E. HERRON AND R. W. RAMSDEN. | 112 |
| Improvements in the Magnetometer Technique of Measuring Gastric Motility. ALLEN E. EDWARDS, PH.D., RICHARD A. HILL, A.B. AND TERRY TREADWELL, A.B. | 116 |
| <i>Announcement</i> | 119 |
| <i>Erratum</i> | 119 |
| <i>Author Index</i> | 120 |

| | |
|------------------------|-----|
| <i>Editorial</i> | 121 |
| <i>Memorial</i> | 123 |

No. 2, OCTOBER 1967

| | |
|---|-----|
| Analysis of Autonomic Reaction Patterns. RONALD S. WILSON | 125 |
| The Effect of Cognitive Tasks and Verbalization Instructions on Heart Rate and Skin Conductance. HAROLD J. JOHNSON AND JOSEPH J. CAMPOS | 143 |
| Normality of Distribution of Resting Palmar Skin Potential. DONALD N. O'CONNELL, BERNARD TURSKY, AND FREDERICK J. EVANS | 151 |
| Operant Salivary Conditioning in Man. CLINTON C. BROWN AND RUTH E. KATZ | 156 |
| Within-Subject Correspondence Between Skin Conductance and Skin Potential Under Conditions of Activity and Passivity. RALPH B. HUPKA AND GEORGE LEVINGER | 161 |
| Operant Electrodermal Conditioning under Multiple Schedules of Reinforcement. DAVID SHAPIRO AND ANDREW CRIDER | 168 |
| Effects of Spinal-Cord Transections on Electrodermal Activity in Man. MARCUS J. FUHRER AND MARLYNE KILBEY | 176 |
| Facts and Artifacts in Using Analysis of Covariance to 'Undo' the Law of Initial Values. LORNA S. BENJAMIN | 187 |
| Some Aspects of the Transephalic D.C. Circuit. MURRAY A. COWEN, JOHN ROSS AND ROBERT McDONALD | 207 |
| Skin Resistance, Sweat-Gland Counts, Salivary Flow, and Gastric Secretion: Age, Race, and Sex Differences, and Intercorrelations. KERRISON JUNIPER AND ROSCOE A. DYKMAN | 216 |
| The Influence of Some Psychological Factors on Latency of the Galvanic Skin Reflex. WALTER W. SURWILLO | 223 |
| Modification in Autonomically Mediated Physiological Responses to Cold Pressor by Cognitive Activity: an Extension. TIMOTHY G. SADLER, BETTY A. WIELAND, ROY B. MEFFERD, RICHARD G. BENTON, AND C. DOUGLAS MCDANIEL | 229 |
| Palmar Skin Resistance and Sweat-Gland Counts in Drug and Non-Drug States. KERRISON JUNIPER, DAVID E. BLANTON, AND ROSCOE A. DYKMAN | 231 |
| <i>Instrumentation</i> | |
| The Shielding of Electroencephalographic Laboratories. NOEL P. THOMPSON AND RAYMOND B. YARBROUGH | 244 |
| Programming Complex Psychophysiology Experiments with Punched Paper Tape: A Methodological Approach. CLINTON C. BROWN AND DAVID KRAUSMAN | 249 |
| A Proposed Standard Nomenclature for Physiologic Measures. A COMMITTEE REPORT | 260 |
| <i>Announcement</i> | 265 |
| <i>Author Index</i> | 266 |

CONTENTS OF VOLUME 4

v

No. 3, JANUARY 1968

| | |
|---|-----|
| Effects of Evening Activity on Early Night Sleep. PETER HAURI..... | 267 |
| Effects of Changing the CS-US Interval on Human Salivary Responses. DAVID T. WELLS AND BEN W. FEATHER..... | 278 |
| Short-Term Retention in Relation to Arousal. EDWARD LEVONIAN..... | 284 |
| Ability of Actors to Control their GSRs and Express Emotions. ROBERT M. STERN AND NANCY L. LEWIS..... | 294 |
| Visual Recall Ability and Eye Movements. BARBARA B. BROWN..... | 300 |
| The Association Between Alpha Rhythm Propagation Time and Level of Arousal. J. C. SHAW, B.SC., AND K. R. MCLACHLAN, PH.D..... | 307 |
| Autonomic Correlates of Eye Movement Bursts During Stage. REM Sleep. LAWRENCE F. SPRENG, LAVERNE C. JOHNSON AND ARDIE LUBIN..... | 311 |
| The Cardiac Component of the Orienting Response. JOSEPH GERMANA AND STEPHEN B. KLEIN..... | 324 |
| A Comparison of Physiological Indices in Detection of Deception. RICHARD I. THACKRAY AND MARTIN T. ORNE..... | 329 |
| Modification of Galvanic Skin Responses by Reaction Time Measurements. C. DOUGLAS MCDANIEL, ROY B. MEFFERD, JR., BETTY A. WIELAND, TIMOTHY G. SADLER AND RICHARD G. BENTON..... | 340 |
| Classical Conditioning of the Peripheral Vasomotor Orienting Response. ELLIOT N. GALE AND JOHN A. STERN..... | 342 |

Instrumentation

| | |
|--|-----|
| An Absolute Ohmic Readout of the Galvanic Skin Response. RONALD G. HICKS, RICHARD GIESIGE AND ARTHUR FICK..... | 349 |
| An On-Line Method for Measuring Heart Rate in Conditioning Ex- periments. ROBERT D. FITZGERALD, RICHARD M. VARDARIS AND TIMOTHY J. TEYLER..... | 352 |
| Evaluation of Four Longterm Transducer Adhesive Techniques. W. H. RICKLES, JR., M.D., AND HERBERT R. SEAL..... | 354 |

Special Publication

| | |
|--|-----|
| Abstracts of Papers Presented to the Seventh Annual Meeting of the Association for the Psychophysiological Study of Sleep. DAVID FOULKES, EXECUTIVE SECRETARY, AND ANTHONY KALES, PROGRAM CHAIRMAN..... | 361 |
|--|-----|

| | |
|-------------------|-----|
| Author Index..... | 399 |
|-------------------|-----|

No. 4, APRIL 1968

| | |
|--|-----|
| Editorial..... | 401 |
| Toward a Developmental Psychophysiology: My Look Into The Crystal Ball. JOHN A. STERN..... | 403 |
| Electrodermal Activity in Non-Palmar Skin Sites. W. H. RICKLES, JR., M.S., M.D., AND J. L. DAY, B.S..... | 421 |
| Effects of a Stressful Presleep Experience on Electroencephalograph-Re- corded Sleep. FREDERICK BALKELAND, DAVID KOULACK, AND RICHARD LASKY..... | 436 |

| | |
|---|-----|
| Autonomic Correlates of the Spontaneous K-Complex. LAVERNE C. JOHNSON AND WAYNE E. KARPAN..... | 444 |
| Effects of Set and Sex on the Electrodermal Orienting Response. K. E. MOYER..... | 453 |
| Selective Attention and Instrumental Modification of the GSR. RANDALL B. MARTIN, SANFORD J. DEAN, AND GLENN SHEAN..... | 460 |
| Autonomic Activity During Sexual Arousal. MARION A. WENGER, JAMES A. AVERILL, AND DAVID D. B. SMITH..... | 468 |
| Counterconditioning: Fear and Relaxation. WILLIAM W. GRINGS AND TADAO UNO..... | 479 |
| <i>Instrumentation</i> | |
| A Cardiotachometer with Linear Indication of Beat-to-Beat Frequency. JACK M. POPE, GORDON J. DEBOO, AND DAVID D. B. SMITH.... | 486 |
| A Technique for Monitoring Cardiac Activity in the Rat. GERARD MALCUIT, JACQUELINE A-MALOUIN, AND DAVID BELANGER..... | 493 |
| <i>In Memoriam</i> | |
| Eulogy for Chester Darrow. JOHN A. STERN..... | 496 |
| <i>Abstracts</i> | |
| Abstracts of Papers Presented the Seventh Annual Meeting of the Society for Psychophysiological Research..... | 498 |
| <i>Announcements</i> | 509 |
| <i>Author Index</i> | 511 |
| <i>Subject Index</i> | 514 |

